LISTING OF THE CLAIMS

Please cancel claims 115-126.

1. (Previously Presented) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber;

directing light energy onto said semiconductor substrate for heating said semiconductor substrate, said light energy contacting said semiconductor substrate at an angle of incidence of greater than 0^{o};

wherein said light energy contacts said semiconductor substrate in a p-polarized plane or near said p-polarized plane; and

sensing the amount of light energy that is reflected off of the semiconductor substrate and, based on this information, changing the angle of incidence or wavelength of the light energy in order to change the amount of light energy absorbed by the semiconductor substrate.

2. (Withdrawn) A process as defined in claim 1, wherein said light energy is emitted by an incoherent light source.

3. (Original) A process as defined in claim 1, wherein said light energy contacts said semiconductor substrate at an angle of incidence of greater than 10^{o}.

4. (Withdrawn) A process as defined in claim 1, wherein said light energy is polarized creating a first p-polarized light energy beam and a second p-polarized light energy beam, said first and second p-polarized light energy beams being directed onto said semiconductor substrate.

5. (Withdrawn) A process as defined in claim 1, further comprising the step of collimating the light energy prior to polarizing said light energy.

6. (Withdrawn) A process as defined in claim 5, wherein said light energy is collimated using a reflective device.

7. (Withdrawn) A process as defined in claim 5, wherein said light energy is collimated using an optical lens.

8. (Withdrawn) A process as defined in claim 1, wherein said light energy is polarized using a wire-grid polarizing device.

9. (Original) A process as defined in claim 1, wherein said semiconductor substrate is heated by said light energy in combination with other energy sources.

10. (Original) A process as defined in claim 9, wherein said other energy sources comprise light energy sources.

11. (Withdrawn) A process as defined in claim 1, wherein said light energy is emitted by an arc lamp or a tungsten halogen lamp.

12. (Original) A process as defined in claim 1, wherein said light energy contacts said semiconductor substrate at an angle of incidence of from about 40° to about 85°.

13. Canceled.

14. (Original) A process as defined in claim 1, wherein said semiconductor substrate is heated by said light energy in combination with an electrical resistance heater.

15. (Previously Presented) A process as defined in claim 1, further comprising a step of redirecting any portion of said light energy that is reflected off said semiconductor substrate onto said semiconductor substrate.

16. (Withdrawn) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber; and

directing laser beams onto said semiconductor substrate from at least a first laser and a second laser, wherein said first laser emits light at a first wavelength range and said second laser emits light at a second wavelength range, said first wavelength range being different than second wavelength range.

17. (Withdrawn) A process as defined in claim 16, wherein said first wavelength range and said second wavelength range do not overlap.

18. (Withdrawn) A process as defined in claim 16, wherein said laser beams are in a p-polarized state.

19. (Withdrawn) A process as defined in claim 16, wherein said first laser emits a first laser beam and said second laser emits a second laser beam and wherein said first and second laser beams contact said semiconductor substrate at an angle of incidence greater than 10°.

20. (Withdrawn) A process as defined in claim 19, wherein said first and second laser beams contact said semiconductor substrate at an angle of incidence of from about 40 ° to about 85 °.

21. (Withdrawn) A process as defined in claim 19, wherein said first laser beam contacts said semiconductor substrate at a first angle of incidence and said second laser beam contacts said semiconductor substrate at a second angle of incidence, said first angle of incidence and said second angle of incidence being different.

22. (Withdrawn) A process as defined in claim 16, wherein said semiconductor substrate is heated by other energy sources in addition to said laser beams.

23. (Withdrawn) A process as defined in claim 16, wherein at least certain of said laser beams are pulsed laser beams.

24. (Withdrawn) A process as defined in claim 16, wherein besides said laser beams, said semiconductor substrate is heated by an electrical resistance heater.

25. (Withdrawn) A process as defined in claim 16, further comprising the step of redirecting any portion of said laser beams that are reflected off said semiconductor substrate back onto said semiconductor substrate.

26. (Withdrawn) A process as defined in claim 16, further comprising the step of sensing the amount of light energy from one of the lasers that is reflected off the semiconductor substrate and, based on this information, changing the configuration of

at least one of the lasers in order change the amount of light energy absorbed by the semiconductor substrate.

27. (Previously Presented) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber;

directing a laser beam onto said semiconductor substrate;

configuring said laser beam to strike said substrate at an angle of incidence of at least 10^{o};

configuring said laser beam to strike said substrate so that said laser beam strikes said substrate in a p-polarization plane; and

sensing the amount of the laser beam that is reflected off of the semiconductor substrate and, based on this information, changing the configuration of the laser beam in order to change the amount of light energy absorbed by the semiconductor substrate.

28. (Previously Presented) A process as defined in claim 27, wherein said laser beam strikes said semiconductor substrate in order to carry out an ion implantation anneal process.

29. (Previously Presented) A process as defined in claim 27, wherein said laser beam strikes said substrate at an angle of incidence of from about 40^{o} to about 85^{o}.

30. (Previously Presented) A process as defined in claim 27, wherein, in addition to said laser beam, said semiconductor substrate is heated by other energy sources.

31. (Withdrawn) A process as defined in claim 27, wherein said semiconductor substrate is contacted by at least one other laser beam in addition to said first laser beam, said other laser beam contacting said semiconductor substrate at an angle of incidence that is different than the angle of incidence at which the first laser beam contacts said semiconductor substrate.

32. (Withdrawn) A process as defined in claim 31, wherein said other laser beam is a pulsed laser beam.

33. (Withdrawn) A process as defined in claim 27, wherein said semiconductor substrate is contacted by at least one other laser beam in addition to said first laser beam, said other laser beam having a wavelength range that is different than the wavelength range of said first laser beam.

34. (Previously Presented) A process as defined in claim 27, further comprising the step of redirecting any portion of said laser beam that is reflected off said semiconductor substrate onto said semiconductor substrate.

35. (Original) A process as defined in claim 27, wherein besides said laser beam, said semiconductor substrate is heated by an electrical resistance heater.

36. Canceled.

37. (Withdrawn) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber; and

directing at least a first laser beam and a second laser beam onto said semiconductor substrate for heating said substrate, said first laser beam contacting said semiconductor substrate at a first angle of incidence, said second laser beam contacting said semiconductor substrate at a second angle of incidence, said first angle of incidence being different than said second angle of incidence, each of said first and second laser beams contacting said semiconductor substrate in a p-polarized state.

38. (Withdrawn) A process as defined in claim 37, wherein said first laser beam and said second laser beam are emitted from the same laser.

39. (Withdrawn) A process as defined in claim 37, wherein said first laser beam is emitted from a first laser and said second laser beam is emitted from a second laser.

40. (Withdrawn) A process as defined in claim 37, wherein at least said first laser beam comprises a pulsed laser beam.

41. (Withdrawn) A process as defined in claim 37, wherein said first angle of incidence and said second angle of incidence are greater than 10°.

42. (Withdrawn) A process as defined in claim 37, wherein said first angle of incidence and said second angle of incidence are from about 40° to 85°.

43. (Withdrawn) A process as defined in claim 37, wherein said first laser beam has a first wavelength range and said second laser beam has a second wavelength range, and wherein said first wavelength range is different from said second wavelength range.

44. (Withdrawn) A process as defined in claim 37, wherein said semiconductor substrate is heated by other energy sources in addition to said first laser beam and said second laser beam.

45. (Withdrawn) A process as defined in claim 37, further comprising the step of sensing the amount of said laser beams that is reflected off of said semiconductor substrate, and based on this information, changing the configuration of at least one laser in order to change the amount of light energy absorbed by said semiconductor substrate.

46. (Withdrawn) A process as defined in claim 37, further comprising the step of sensing the amount of light energy from one of the lasers that is reflected off the semiconductor substrate and, based on this information, changing the configuration of at least one of the lasers in order change the amount of light energy absorbed by the semiconductor substrate.

47. (Withdrawn) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber, said substrate being at least substantially surrounded by a slip free ring; and

directing light energy onto said slip free ring for heating said semiconductor substrate, said light energy contacting said slip free ring at an angle of incidence greater than 0°, said light energy also contacting said slip free ring in a p-

polarized state, an elliptically polarized state, or near a p-polarized state.

48. (Withdrawn) A process as defined in claim 47, wherein said semiconductor substrate is also heated by an electrical resistance heater.

49. (Withdrawn) A process as defined in claim 47, wherein said slip free ring is heated by at least one laser.

50. (Withdrawn) A process as defined in claim 47, wherein said light energy is also directed onto and heats said semiconductor substrate.

51. (Withdrawn) A process as defined in claim 47, wherein said slip free ring is coated with an anti-reflective coating.

52. (Withdrawn) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber;

rotating said semiconductor substrate in said processing chamber;

directing light energy onto said semiconductor substrate for heating said semiconductor substrate, said light energy contacting said semiconductor substrate at an angle of incidence of greater than 0°, said light energy also contacting said semiconductor substrate in a p-polarized state, an elliptically polarized state, or near a p-polarized state, said light energy contacting said semiconductor substrate at a location on a radius of said substrate and wherein said entire radius of said substrate is heated through the rotation of the wafer.

53. (Previously Presented) A process as defined in claim 27, wherein the laser beam that is directed onto the semiconductor substrate comprises a pulsed laser beam.

54. (Previously Presented) A process as defined in claim 27, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

55. (Previously Presented) A process as defined in claim 1, wherein the light energy that is directed onto the semiconductor wafer comprises a laser beam.

56. (Previously Presented) A process as defined in claim 55, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

57. (Previously Presented) A process as defined in claim 55, wherein the laser beam that is directed onto the semiconductor substrate comprises a pulsed laser beam.

58. (Previously Presented) A process as defined in claim 27, wherein the configuration of the laser beam is changed by changing the amount of power delivered to the substrate.

59. (Previously Presented) A process as defined in claim 27, further comprises a step of heating the semiconductor substrate with a susceptor placed adjacent to the substrate.

60. (Previously Presented) A process as defined in claim 27, wherein the processing chamber is cooled by a cooling system during processing of the semiconductor substrate.

61. (Previously Presented) A process as defined in claim 27, wherein the processing chamber includes a gas inlet and a gas outlet for introducing gasses into the chamber during processing.

62. (Previously Presented) A process as defined in claim 27, further comprising the step of rotating the semiconductor substrate in the processing chamber.

63. (Previously Presented) A process as defined in claim 27, further comprising the step of sensing the temperature of the semiconductor substrate during processing using at least one temperature sensing device.

64. (Previously Presented) A process as defined in claim 63, wherein the processing chamber includes a single temperature sensing device comprising a radiation sensing device.

65. (Previously Presented) A process as defined in claim 63, wherein the processing chamber includes a plurality of temperature sensing devices, the temperature sensing devices comprising radiation sensing devices.

66. (Previously Presented) A process as defined in claim 27, wherein the laser beam is emitted by a laser, the laser being positioned on the outside of the processing chamber, the laser beam being directed into the processing chamber through a window.

67. (Previously Presented) A process as defined in claim 63, wherein the temperature sensing device is in communication with a controller, the controller receiving temperature information from the temperature sensing device and, in turn, controlling the laser beam being directed onto the semiconductor substrate.

68. (Previously Presented) A process as defined in claim 27, wherein the semiconductor substrate has an irregular surface that comprises non-smooth features, and wherein the laser beam is configured to strike the semiconductor substrate so as to take into account the non-smooth features.

69. (Previously Presented) A process as defined in claim 27, wherein prior to contacting the semiconductor substrate, the laser beam is contacted with a mirror.

70. (Previously Presented) A process as defined in claim 27, wherein prior to contacting the semiconductor substrate, the laser beam is contacted with an optical device.

71. (Previously Presented) A process as defined in claim 70, wherein the optical device reshapes the laser beam.

72. (Previously Presented) A process as defined in claim 70, wherein the optical device comprises a half wave plate.

73. (Previously Presented) A process as defined in claim 71, wherein the laser beam is emitted by a laser diode.

74. (Previously Presented) A process as defined in claim 27, wherein the laser beam strikes a top surface of the semiconductor substrate.

75. (Previously Presented) A process as defined in claim 27, wherein the laser beam is emitted by a laser diode.

76. (Previously Presented) A process as defined in claim 75, wherein the laser beam has a wavelength of from about 400 nm to about 4000 nm.

77. (Previously Presented) A process as defined in claim 27, wherein the laser beam has a wavelength of from about 400 nm to about 4000 nm.

78. (Previously Presented) A process as defined in claim 54, wherein the laser beam is scanned only over a selected region of the surface of the semiconductor substrate.

79. Canceled.

80. Canceled.

81. Canceled.

82. (Previously Presented) A process for heating semiconductor substrates comprising the steps of:

placing a semiconductor substrate in a processing chamber;

directing a laser beam onto said semiconductor substrate, the laser beam being directly emitted by a laser diode into the processing chamber;

configuring the laser beam to strike the substrate at an angle of incidence of at least 10°; and

configuring the laser beam to strike the substrate so that the laser beam strikes the substrate in or near a p-polarization plane.

83. (Previously Presented) A process as defined in claim 82, wherein said laser beam strikes said substrate at an angle of incidence of from about 40° to about

85°.

84. (Previously Presented) A process as defined in claim 82, wherein, in addition to said laser beam, said semiconductor substrate is heated by other energy sources.

85. (Previously Presented) A process as defined in claim 82, wherein in addition to said laser beam, said semiconductor substrate is heated by an electrical resistance heater.

86. (Previously Presented) A process as defined in claim 82, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

87. (Previously Presented) A process as defined in claim 82, wherein the semiconductor substrate has an irregular surface that comprises non-smooth features, and wherein the laser beam is configured to strike the semiconductor substrate so as to take into account the non-smooth features and to strike the substrate at an angle of incidence for creating more uniform absorption characteristics.

88. (Previously Presented) A process as defined in claim 82, wherein the laser beam heats the semiconductor substrate, the semiconductor substrate being heated to a temperature sufficient to cause ion implantation annealing that repairs defects present in the substrate.

89. (Previously Presented) A process as defined in claim 82, wherein the semiconductor substrate contains a pattern of coatings.

90. (Previously Presented) A process as defined in claim 87, wherein the non-smooth features comprise trenches.

91. (Previously Presented) A process as defined in claim 82, wherein the semiconductor substrate comprises silicon.

92. (Previously Presented) A process for heating semiconductor substrates coated with polysilicon or silicon dioxide comprising:

placing a semiconductor substrate in a processing chamber, the semiconductor substrate including a coating comprising polysilicon or silicon dioxide;

heating the semiconductor substrate with an energy source;

in addition to the energy source, directing a laser beam onto said semiconductor substrate;

configuring the laser beam to strike the substrate at an angle of incidence of at least 10° and at a wavelength of at least about 400 nm; and

configuring the laser beam to strike the substrate so that the laser beam strikes the substrate in a p-polarization plane or near a p-polarization plane.

93. (Previously Presented) A process as defined in claim 92, wherein said laser beam strikes said substrate at an angle of incidence of from about 40° to about 85°.

94. (Previously Presented) A process as defined in claim 92, wherein the energy source comprises an electrical resistance heater.

95. (Previously Presented) A process as defined in claim 92, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

96. (Previously Presented) A process as defined in claim 92, wherein the semiconductor substrate includes a 2-layered coating comprising a top coating of the polysilicon and a bottom coating of silicon dioxide.

97. (Previously Presented) A process as defined in claim 92, wherein the laser beam is emitted by a continuous wave laser.

98. (Previously Presented) A process as defined in claim 92, wherein the semiconductor substrate has an irregular surface that comprises non-smooth features,

and wherein the laser beam is configured to strike the semiconductor substrate so as to take into account the non-smooth features and to strike the substrate at an angle of incidence for creating more uniform absorption characteristics.

99. (Previously Presented) A process as defined in claim 98, wherein the non-smooth features comprise trenches.

100. (Previously Presented) A process as defined in claim 92, wherein the laser beam heats the semiconductor substrate, the semiconductor substrate being heated to a temperature sufficient to cause ion implantation annealing that repairs defects present in the substrate.

101. (Previously Presented) A process as defined in claim 92, wherein the coating comprising polysilicon or silicon dioxide is present on the semiconductor substrate in a pattern.

102. (Previously Presented) A process as defined in claim 92, wherein the semiconductor substrate comprises silicon.

103. (Previously Presented) A process for heating semiconductor substrates having surface irregularities comprising:

placing a semiconductor substrate in a processing chamber, the semiconductor substrate having an irregular surface that comprises non-smooth features;

based upon the irregular surface, determining an optimal angle of incidence of a light beam that optimizes a uniform absorption of the light beam by the semiconductor substrate;

directing a laser beam onto the semiconductor substrate so as to strike the substrate at the optimal angle of incidence, the optimal angle of incidence being at least 10° and striking the substrate such that the laser beam is in a p-polarization plane or near a p-polarization plane.

104. (Previously Presented) A process as defined in claim 103, wherein said

laser beam strikes said substrate at an angle of incidence of from about 40° to about 85°.

105. (Previously Presented) A process as defined in claim 103, wherein, in addition to said laser beam, said semiconductor substrate is heated by other energy sources.

106. (Previously Presented) A process as defined in claim 103, wherein in addition to said laser beam, said semiconductor substrate is heated by an electrical resistance heater.

107. (Previously Presented) A process as defined in claim 103, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

108. (Previously Presented) A process as defined in claim 103, wherein the laser beam has a wavelength of greater than about 0.8 microns.

109. (Previously Presented) A process as defined in claim 103, wherein the laser beam is emitted by a continuous wave laser.

110. (Previously Presented) A process as defined in claim 103, wherein the laser beam is emitted by a laser diode.

111. (Previously Presented) A process as defined in claim 103, wherein the non-smooth features comprise trenches.

112. (Previously Presented) A process as defined in claim 103, wherein the laser beam heats the semiconductor substrate, the semiconductor substrate being heated to a temperature sufficient to cause ion implantation annealing that repairs defects present in the substrate.

113. (Previously Presented) A process as defined in claim 103, wherein the semiconductor substrate contains a pattern of coatings.

114. (Previously Presented) A process as defined in claim 103, wherein the semiconductor substrate comprises silicon.

115. – 126. Canceled

127. (Previously Presented) A process for heating semiconductor substrates comprising:

placing a semiconductor substrate in a processing chamber, the semiconductor substrate being coated with materials to form a pattern on a surface of the substrate;

based upon the pattern of coatings present on the semiconductor substrate, determining an optimal angle of incidence of a light beam that optimizes a uniform absorption of the light beam by the semiconductor substrate;

directing a laser beam onto the semiconductor substrate, the laser beam contacting the semiconductor substrate at the determined optimal angle of incidence, the laser beam striking the substrate at an angle of incidence of at least 10°, the laser beam also striking the substrate so that the laser beam strikes the substrate in a p-polarization plane or near a p-polarization plane.

128. (Previously Presented) A process as defined in claim 127, wherein the semiconductor substrate is heated by another energy source in addition to the laser beam.

129. (Previously Presented) A process as defined in claim 128, wherein the other energy source comprises a heated susceptor.

130. (Previously Presented) A process as defined in claim 127, wherein said laser beam strikes said substrate at an angle of incidence of from about 40° to about 85°.

131. (Previously Presented) A process as defined in claim 127, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

132. (Previously Presented) A process as defined in claim 127, wherein the laser beam is emitted by a continuous wave laser.

133. (Previously Presented) A process as defined in claim 127, wherein the laser beam is emitted by a laser diode.

134. (Previously Presented) A process as defined in claim 128, wherein the laser beam is moved relative to the surface of the semiconductor substrate such that the laser beam is scanned over the surface of the substrate.

135. (Previously Presented) A process as defined in claim 127, wherein the semiconductor substrate has an irregular surface that comprises non-smooth features, and wherein the laser beam is configured to strike the semiconductor substrate so as to take into account the non-smooth features and to strike the substrate at an angle of incidence for creating more uniform absorption characteristics.

136. (Previously Presented) A process as defined in claim 135, wherein the non-smooth features comprise trenches.

137. (Previously Presented) A process as defined in claim 127, wherein the laser beam heats the semiconductor substrate, the semiconductor substrate being heated to a temperature sufficient to cause ion implantation annealing that repairs defects present in the substrate.

138. (Previously Presented) A process as defined in claim 128, wherein the other energy source comprises an electrical resistance heater.

139. (Previously Presented) A process as defined in claim 127, wherein the semiconductor substrate comprises silicon.